

103710-5802-0000

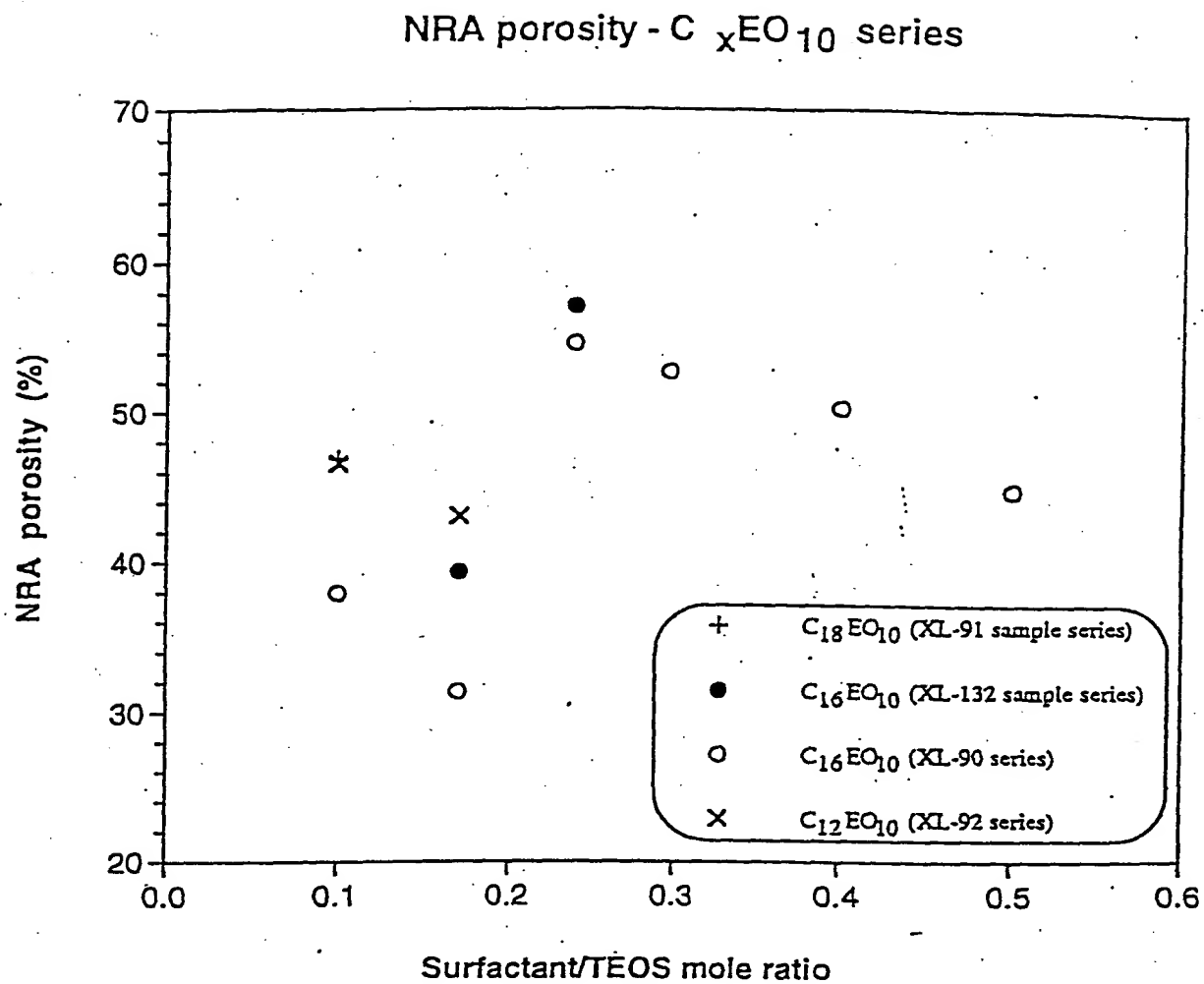


FIG. 1

$C_{12}EO_{10}$ based Films
Surfactant/TEOS mole ratio = 0.17

Effect of Dehydroxylation Treatments on k'

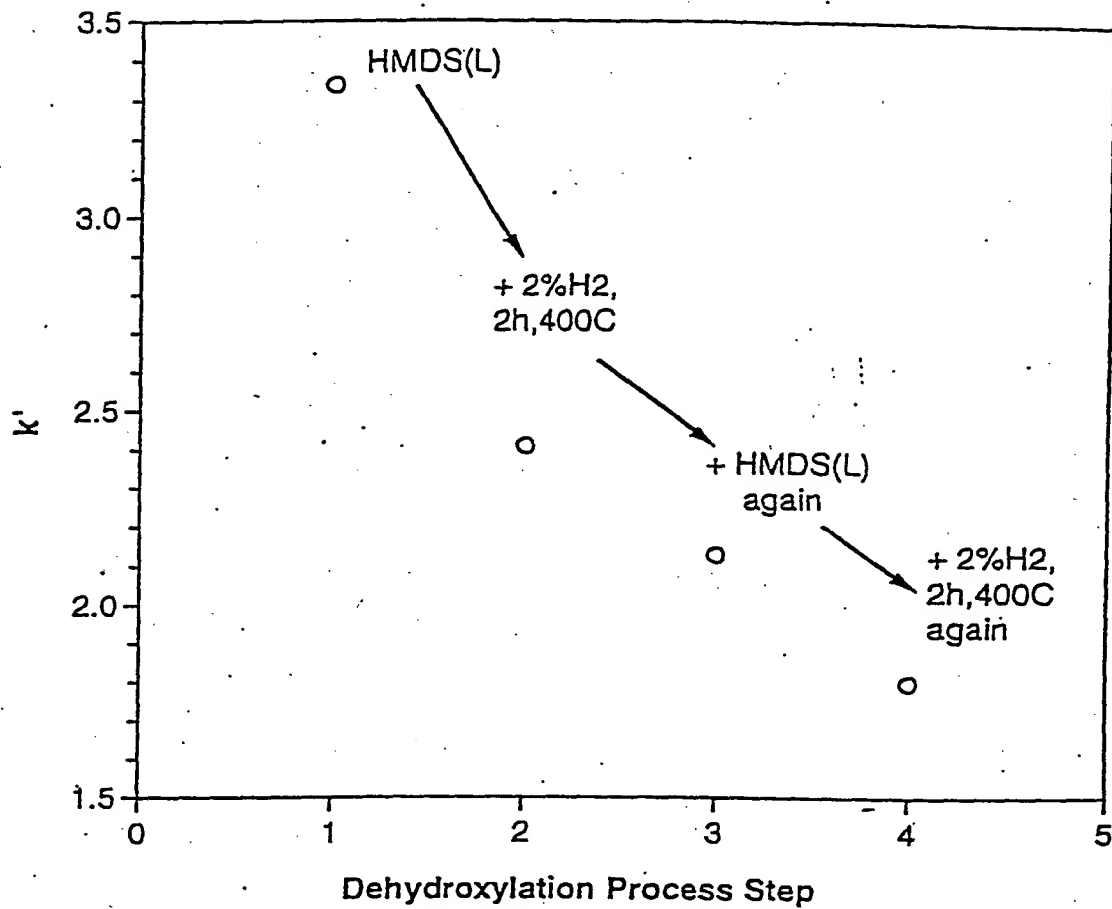


FIG. 2

$C_{16}EO_{10}$ based Films
Surfactant/TEOS mole ratio = 0.3

Effect of Dehydroxylation Treatments on k'

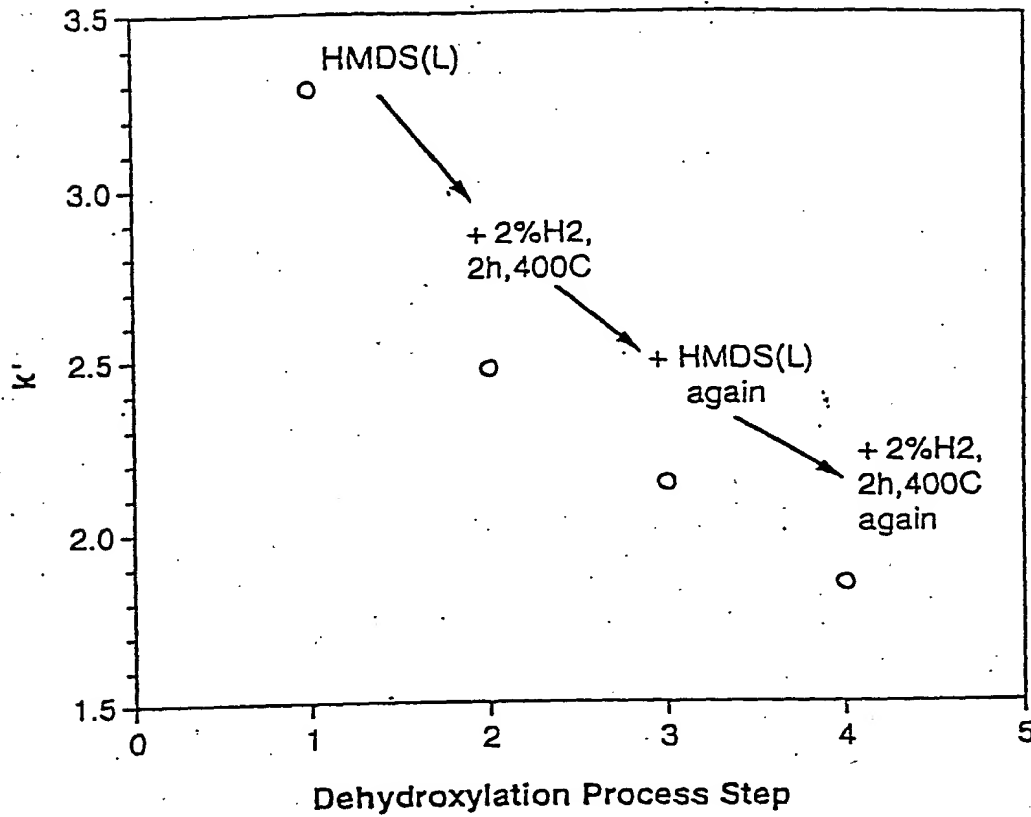


FIG. 3

<C90508D.RD> 144-2

FOFHO 5882E800

Center Spot -- Beam ALONG Radius

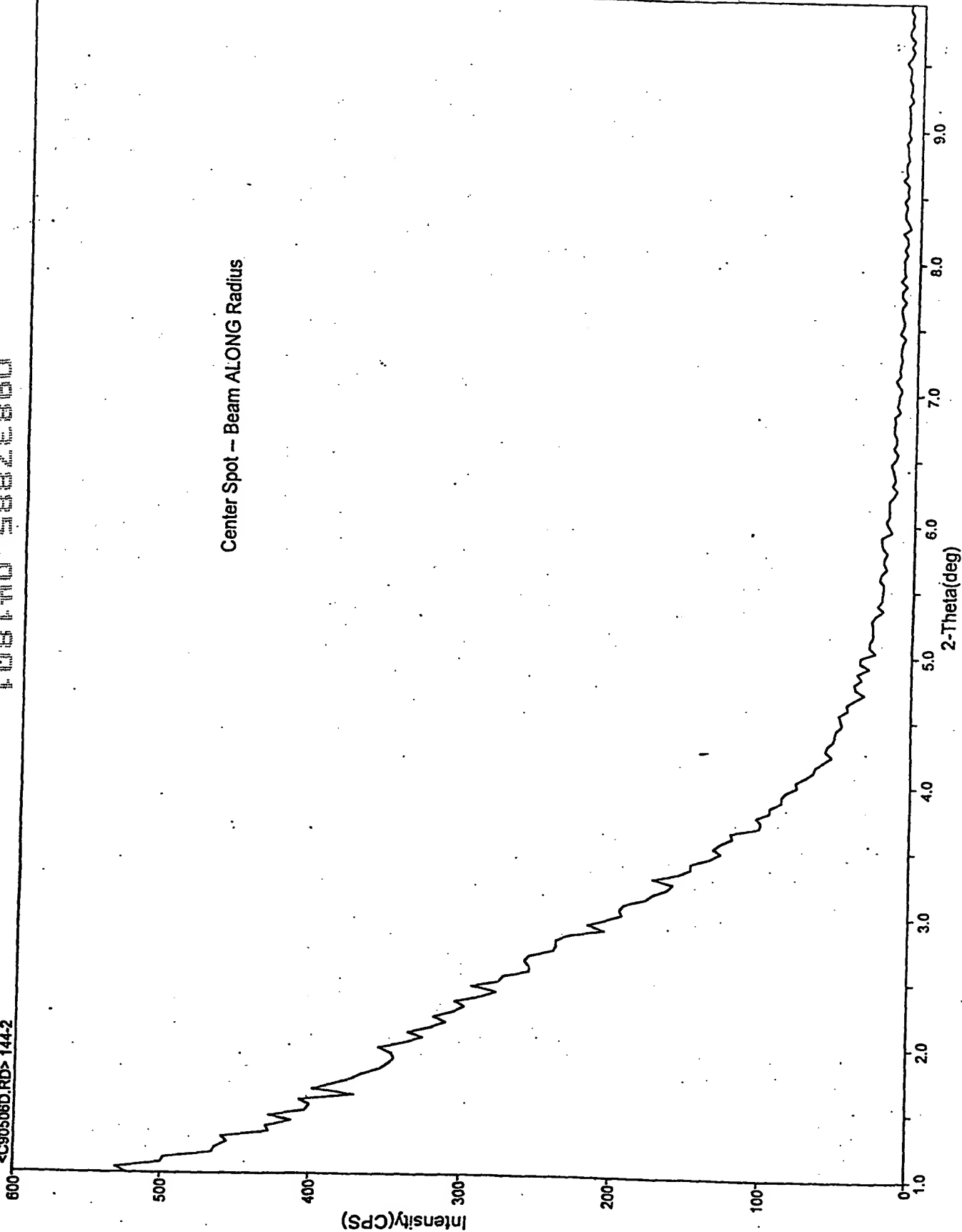


FIG. 4a

FOOTID-5884E860

<C90508B.RD> 144-2

Center Spot -- Beam ACROSS Radius

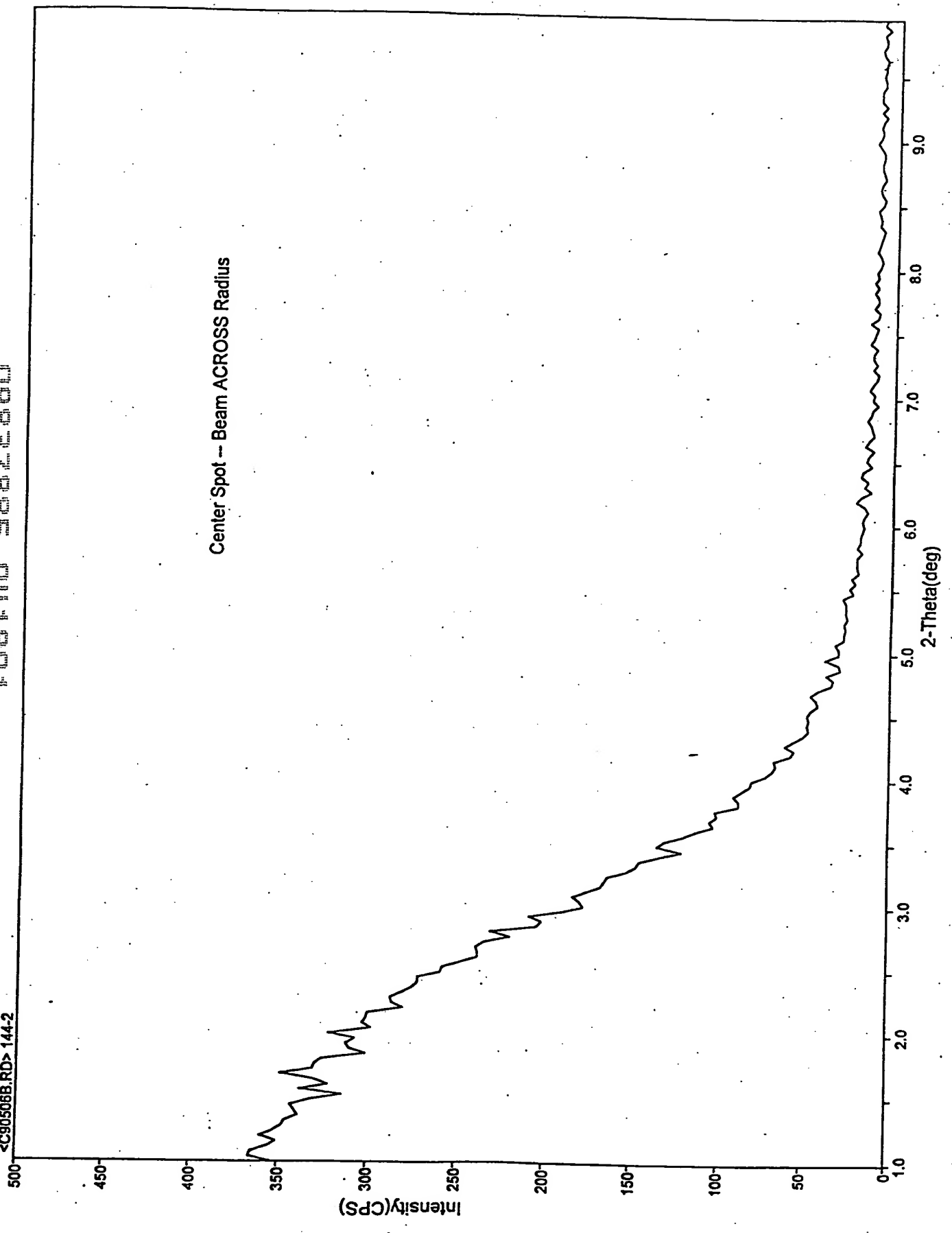


FIG. 4b

FOBT10-5884E860

TEM micrograph showing ultrafine pores and a disordered pore structure in surfactant-templated mesoporous silica film

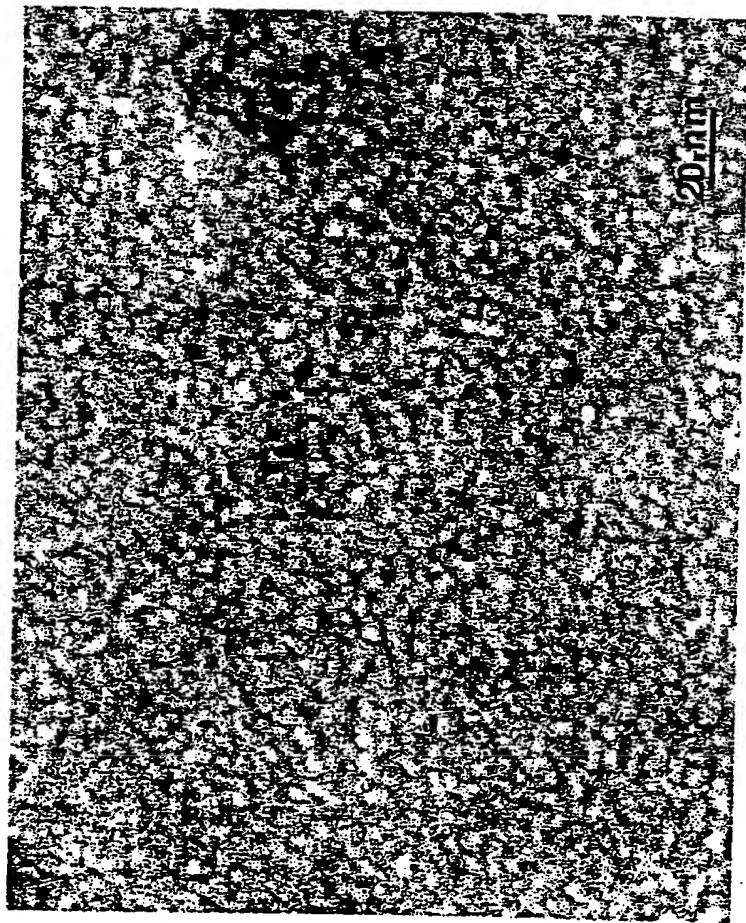


FIG. 5

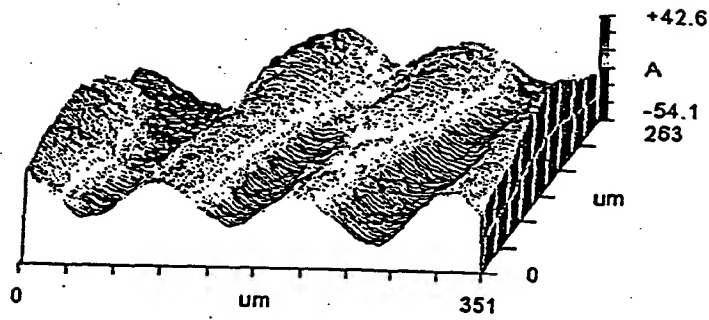


FIG. 6a

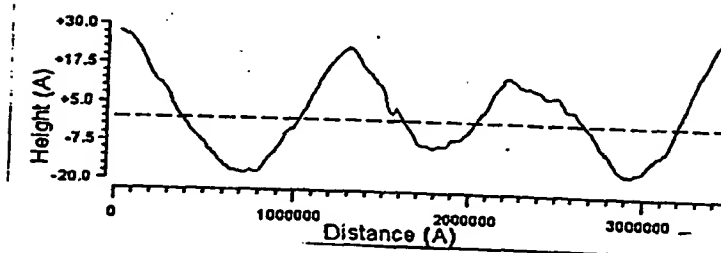


FIG. 6b

Modulus between 14 and 17 GPa
obtained for 50-300 microNewton loads

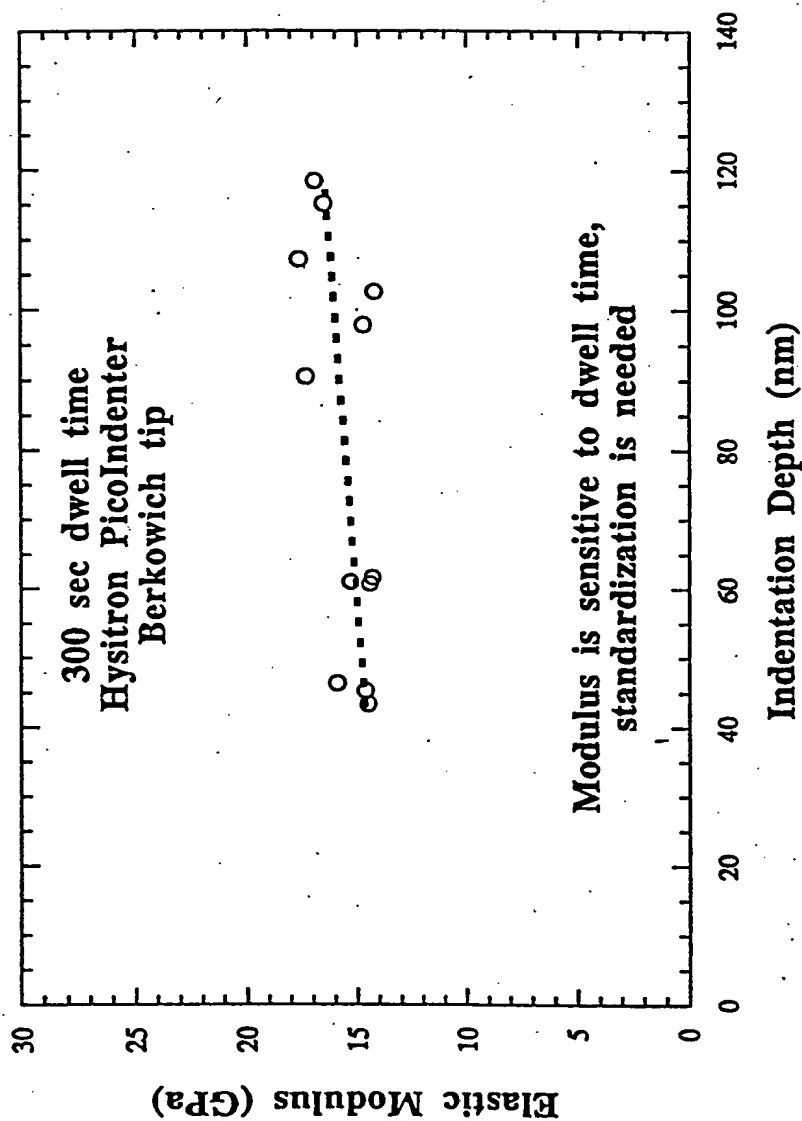


Fig. 7

TOBRO 5882E60

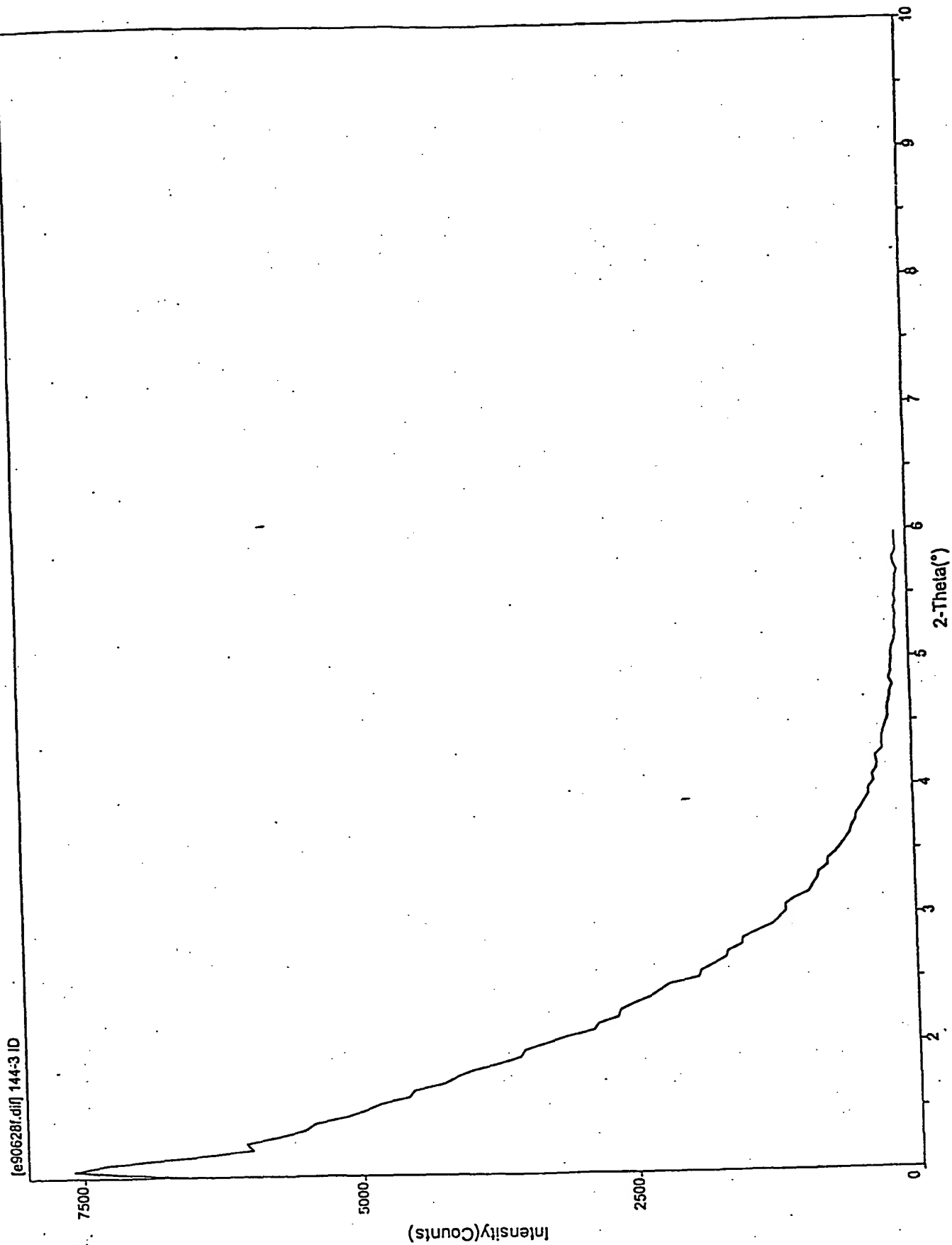


FIG. 8a

FO8FH0: 5832E860

[e90628e.dif] 144-3 ID

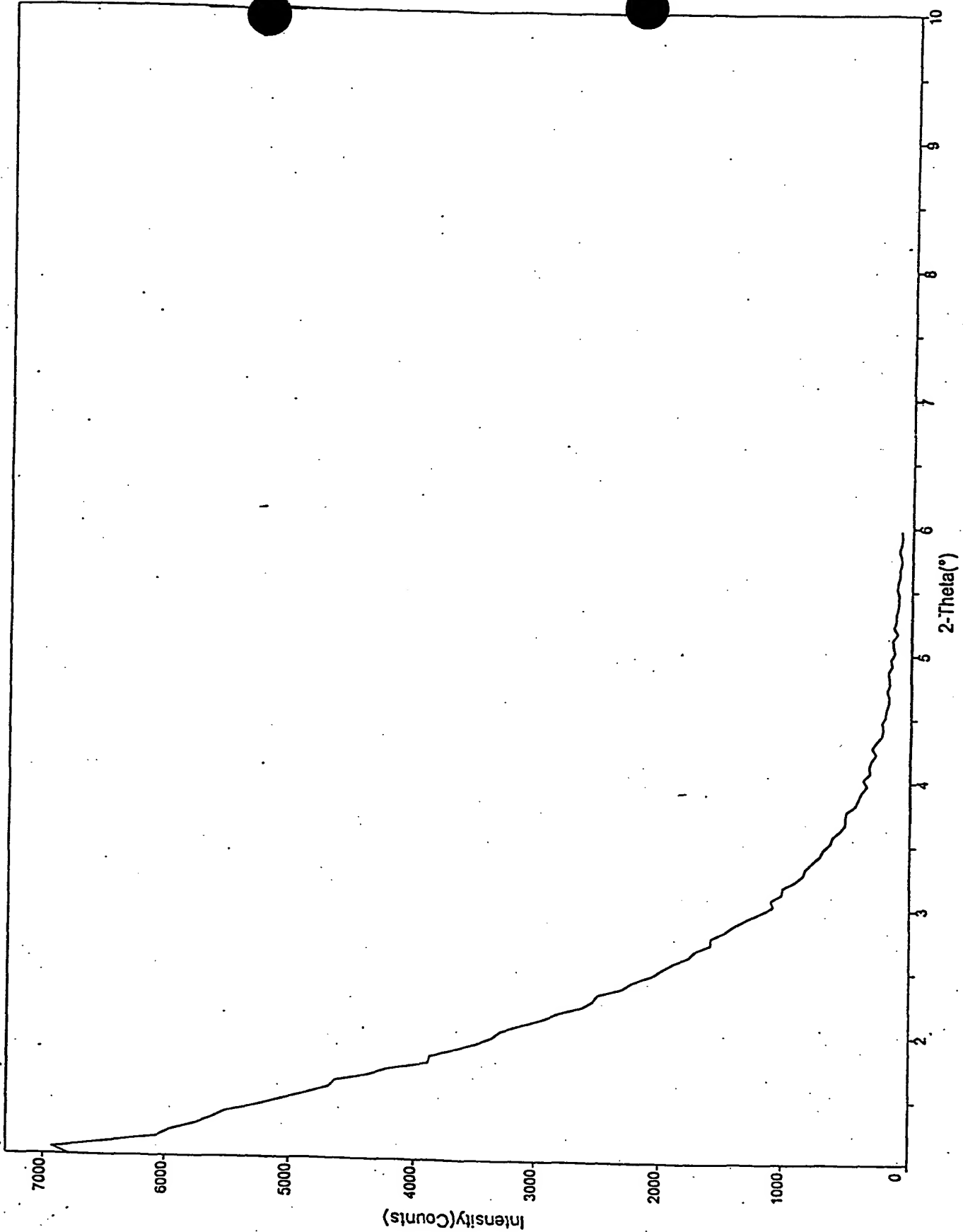


FIG. 8b

FOBT70-SBBZE860

[e90628b.dif] CC22C

7500

5000

2500

Intensity(Counts)

0

2

3

4

5

6

7

8

9

10

2-Theta(°)

FIG. 9a

FOBT10-5884E860

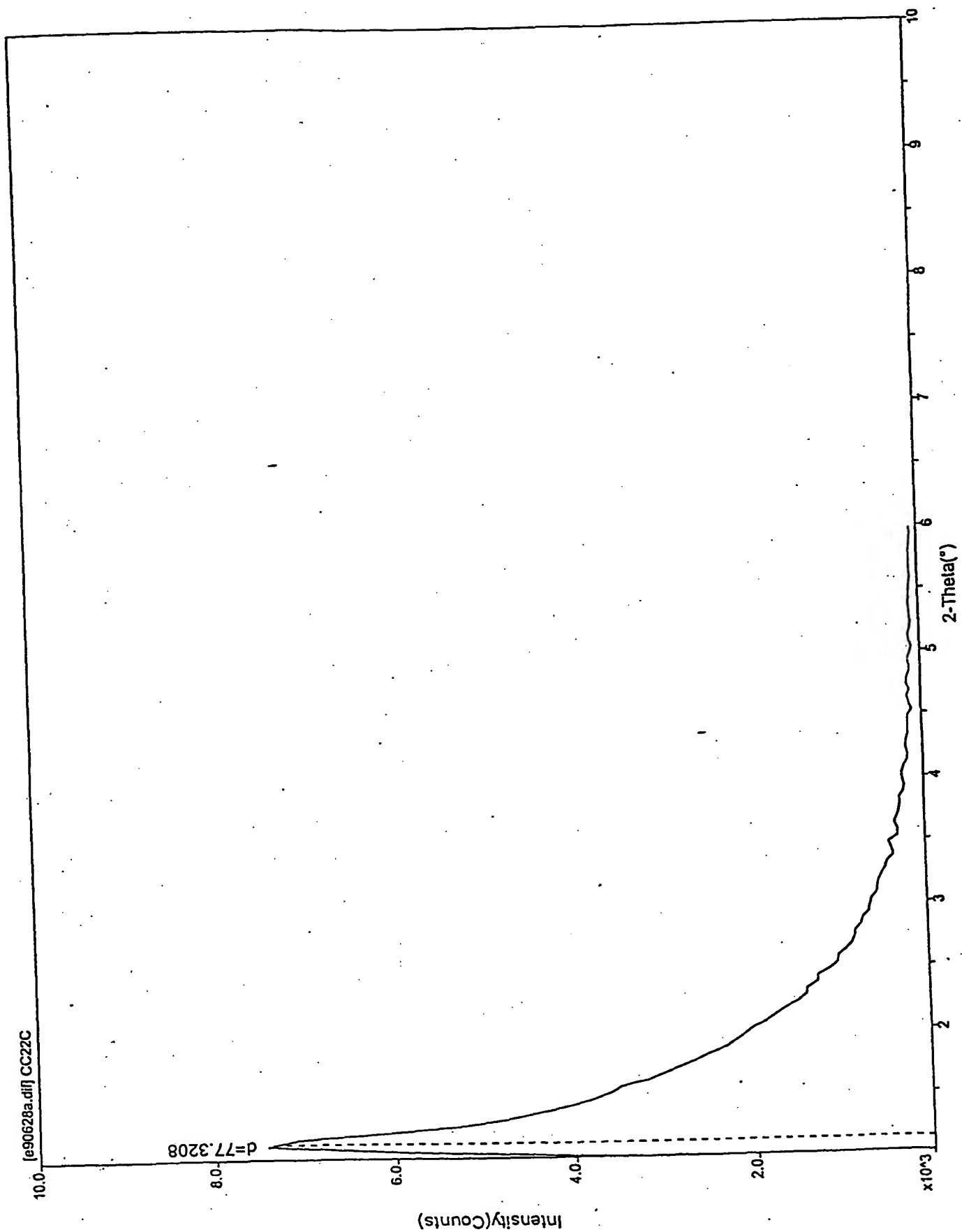


FIG. 9b

TOPPUS 5882E860

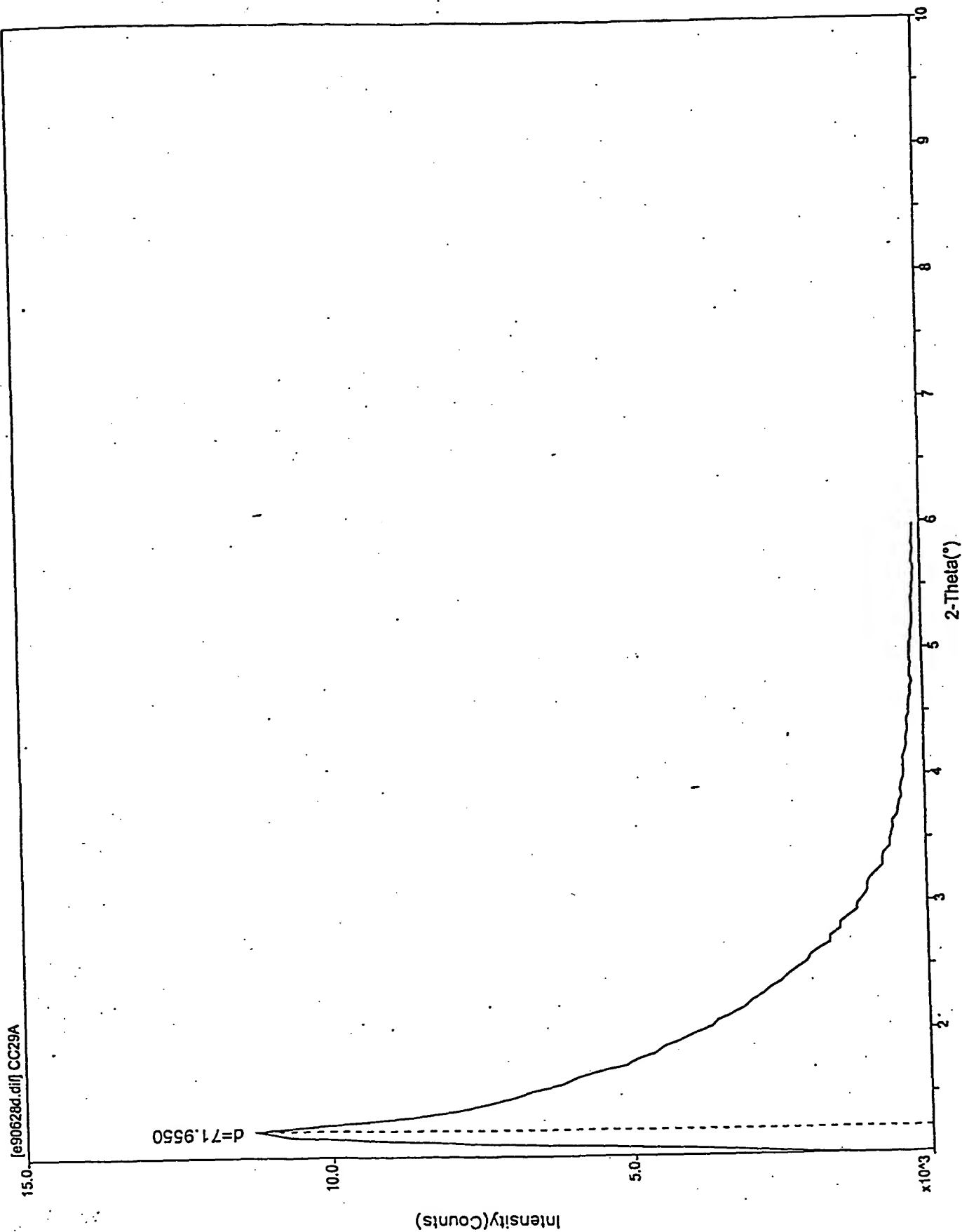


FIG. 10a

T02F10:58B2E660

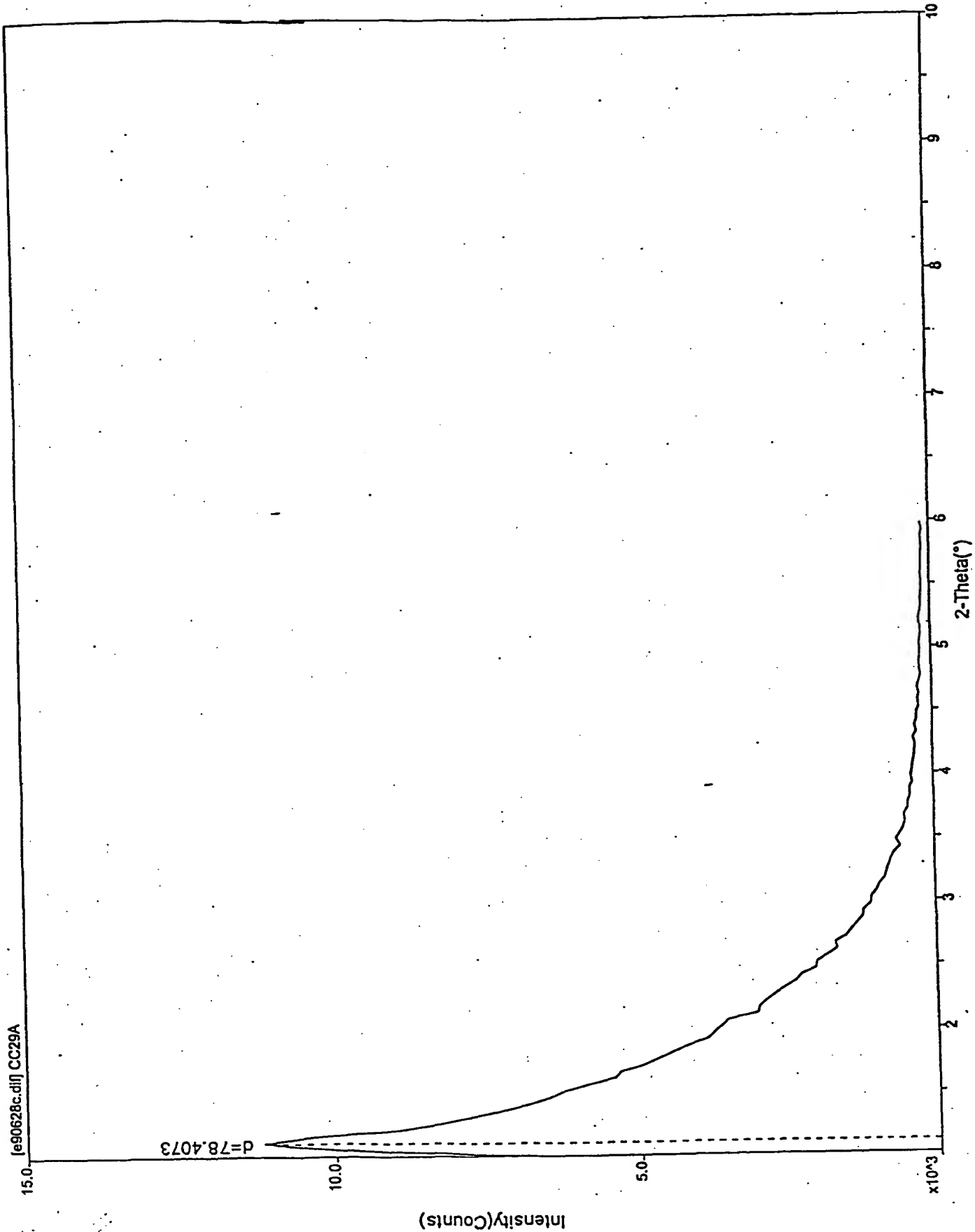


FIG. 10b

TOTID=58822860

le90624d.dif CC81-1B

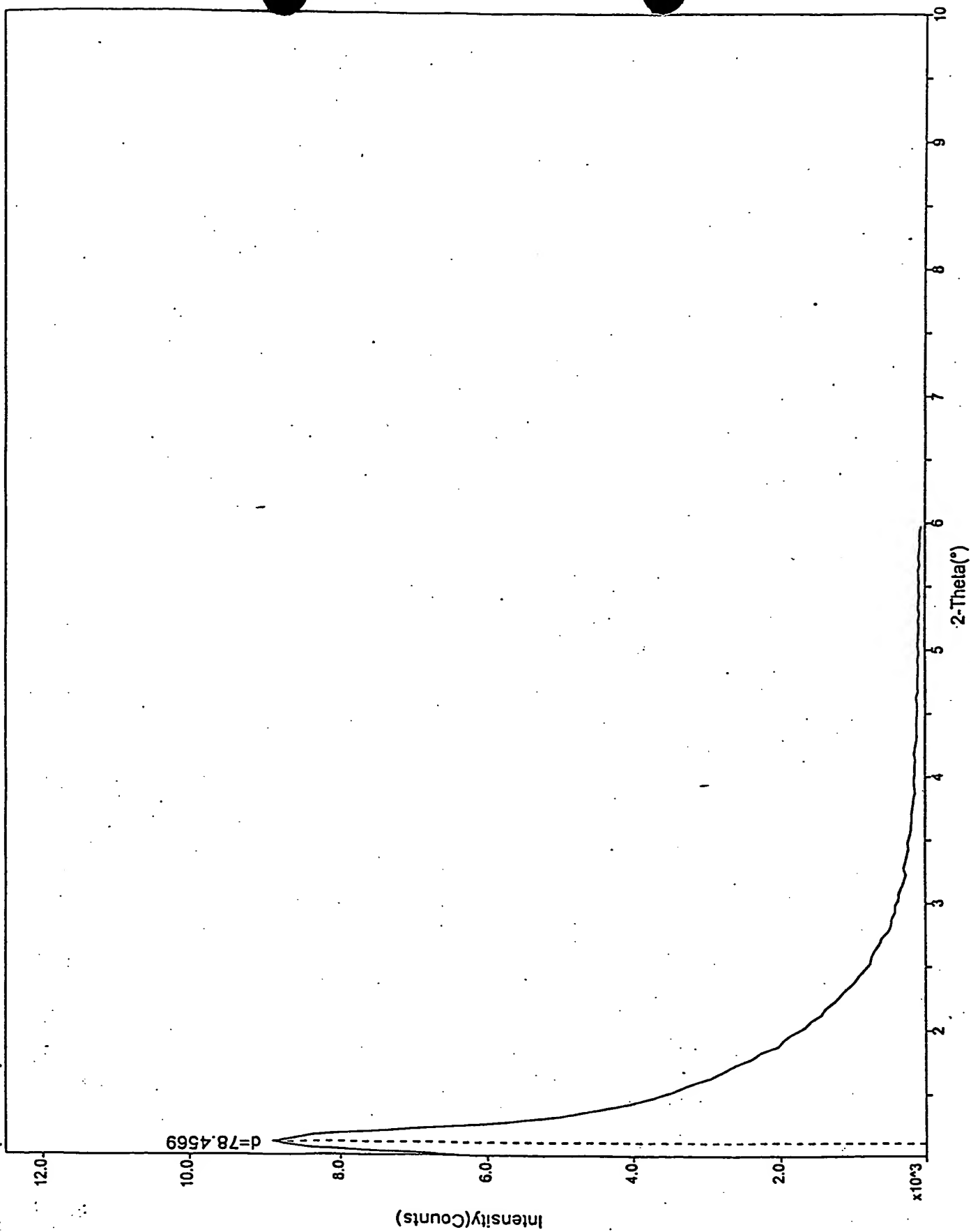


FIG. 11a

FD8TH0°S002E00

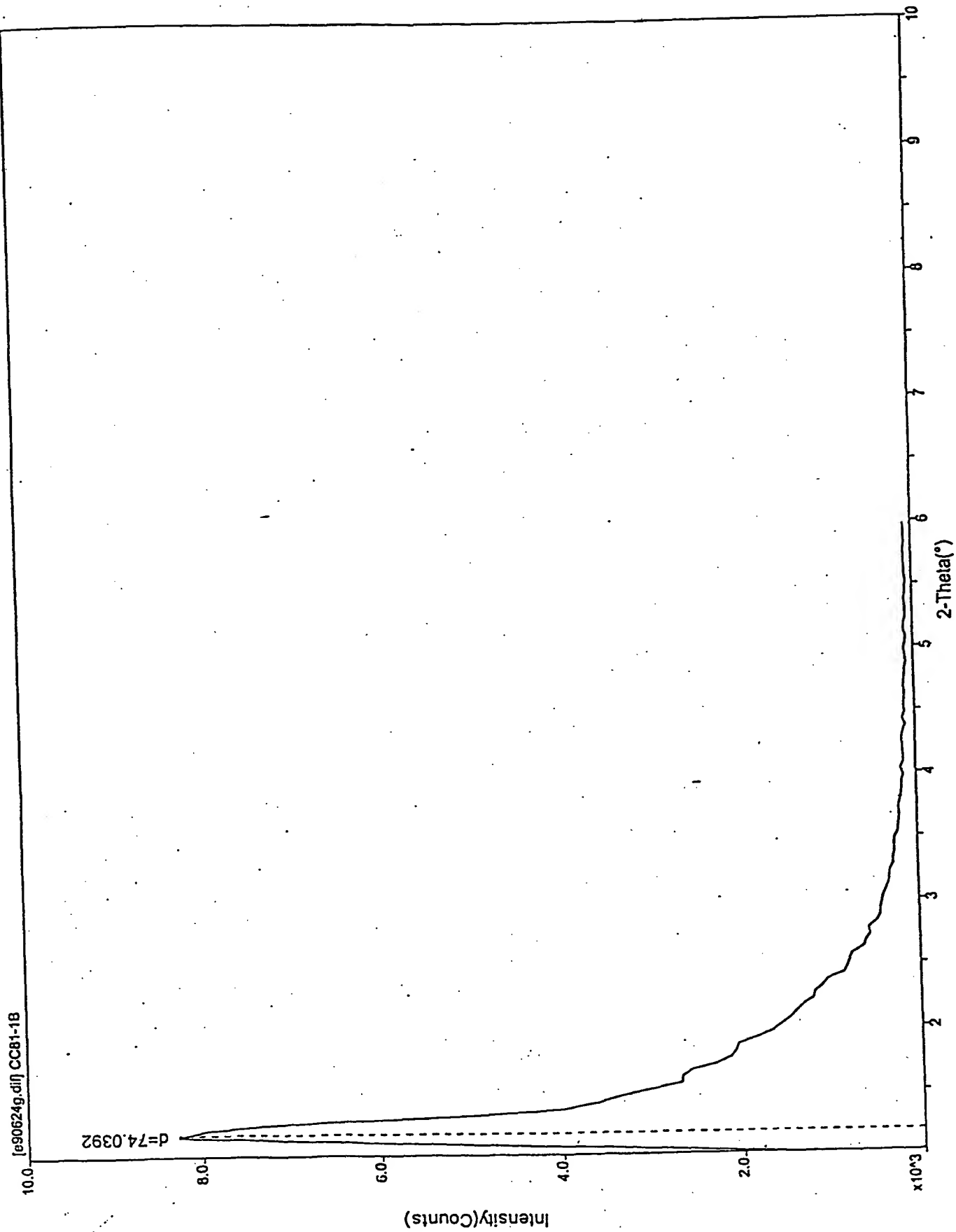


FIG. 11b

FOOTHO' 5884E800

le906241.dif CC83-1B

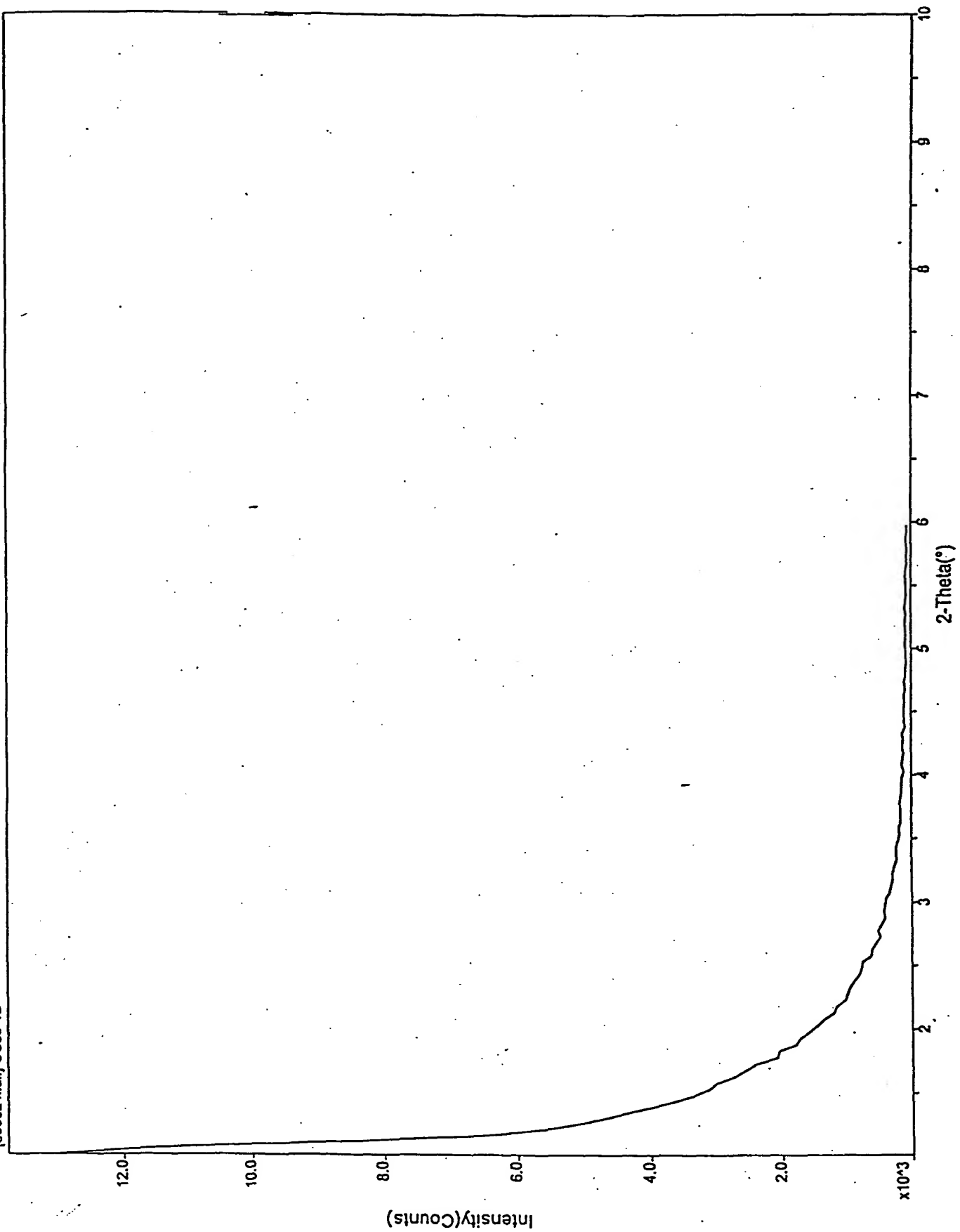


FIG. 12a

TOFTO 5882E860

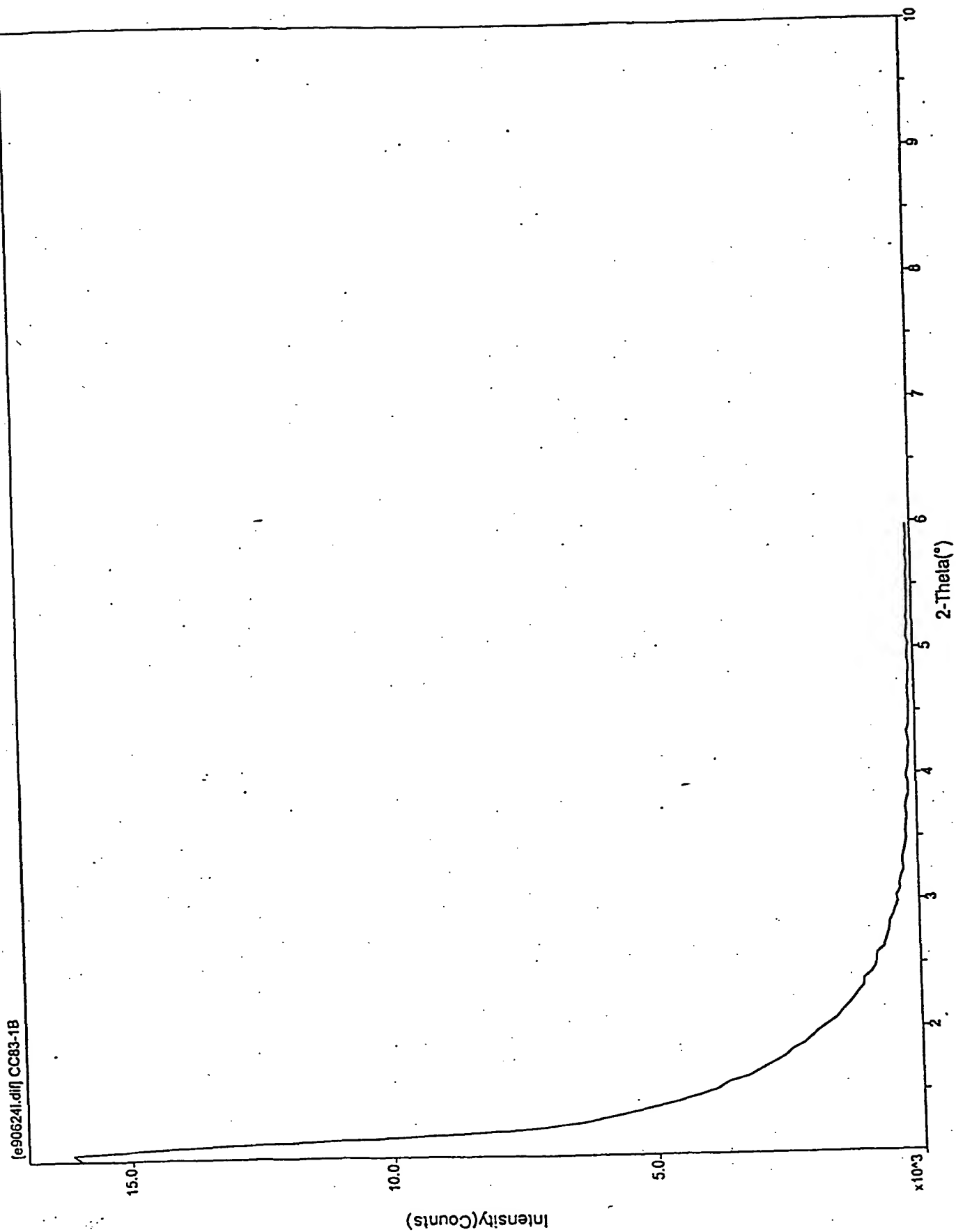


FIG. 17h

FOOTHO: 5882860

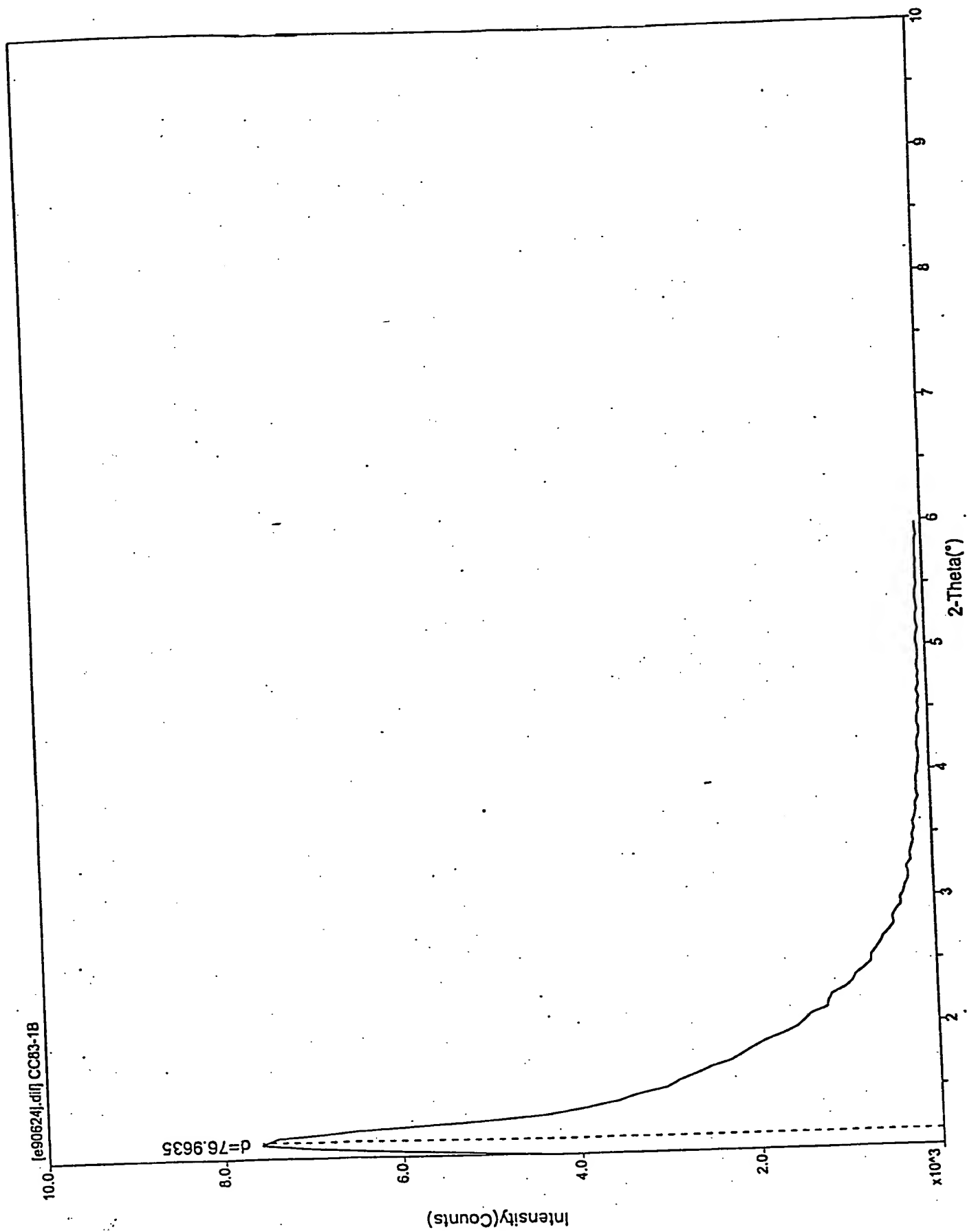


FIG. 12c

FORNO 5832300

[e90624m.dif] CC83-1B

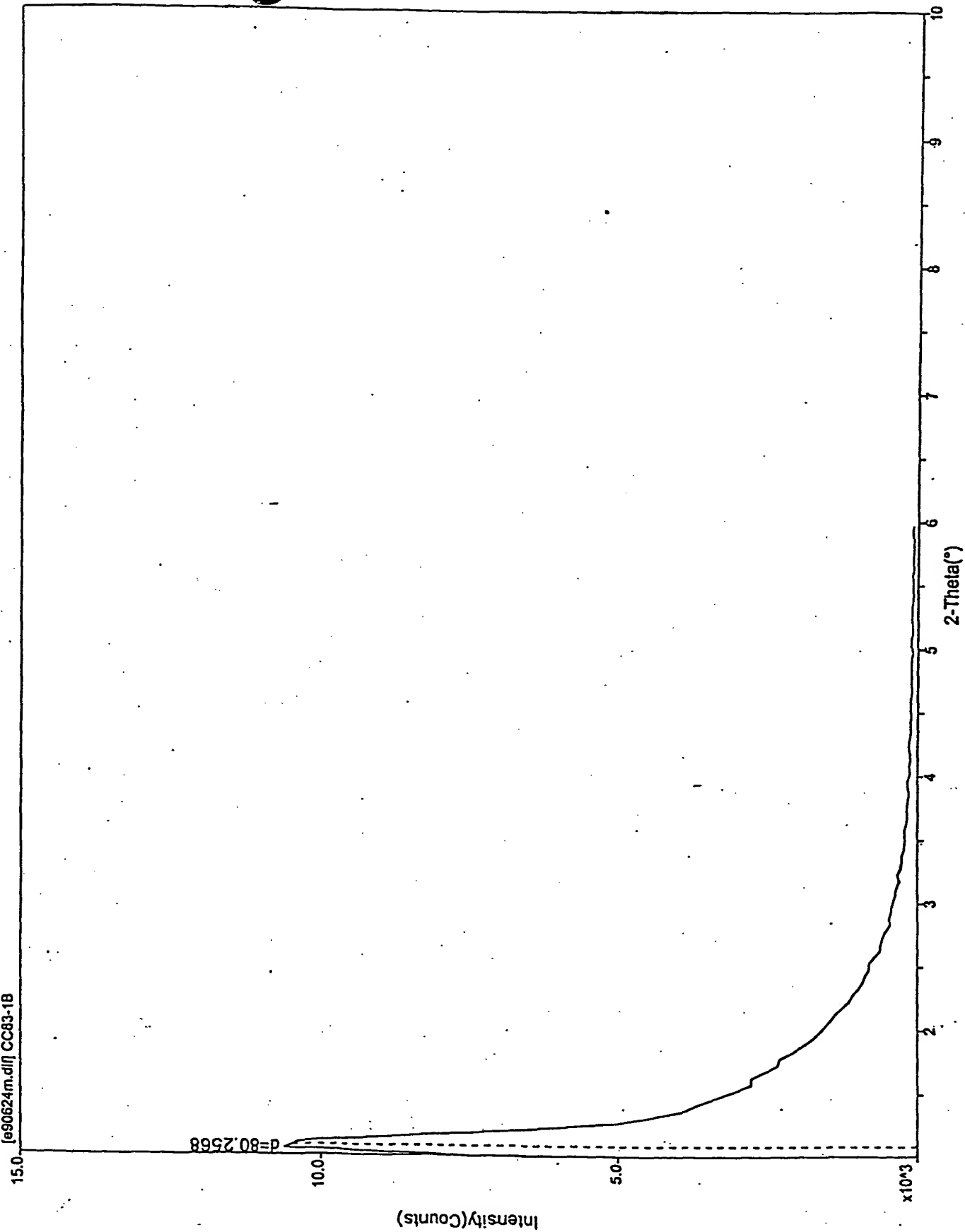


Fig. 12d